



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/743,966

12/23/2003

Patrick Willem

920522-95347

9399

23644 7590 06/19/2008
BARNES & THORNBURG LLP
P.O. BOX 2786
CHICAGO, IL 60690-2786

EXAMINER

DINH, DUC Q

ART UNIT

PAPER NUMBER

2629

NOTIFICATION DATE

DELIVERY MODE

06/19/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

patent-ch@btlaw.com

Office Action Summary	Application No. 10/743,966	Applicant(s) WILLEM ET AL.	
	Examiner Duc Q. Dinh	Art Unit 2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 15 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 24-34 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 24-34 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on April 15, 2008 has been entered.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Matthies (U.S. Patent No. 6,498,592).

In reference to claim 1, Matthies discloses in Figure 1, a tiled emissive display (100) for displaying an image, the tiled emissive display (100) comprising a plurality of emissive display tile assemblies (122, 124) mechanically coupled together, and

a processing means (134) for performing real-time calculations with respect to the image to be displayed,

wherein the processing means is a distributed processing means (134) distributed over the plurality of emissive display tile assemblies (120, 124), so that each emissive display tile assembly (120, 124) is suitable for handling a different portion of the image for performing real-time calculations (see Fig. 2)

Matthies further discloses the tiled emissive display (Fig. 1) wherein the distributed processing means (134) performs real time calculations of lifetime of the pixels correspondent display tile (a processing perform calculation various pixels at the circuitry 134 may include an compensation system which continuously adjusts (real time calculations) the brightness of the individual pixels to compensate for the lifetime; the brightness of an OLED pixel that occurs with aging (lifetime) can be predicted by measuring the current and the time. This product can be fitted to a characteristic curve and used to adjust the drive current to predict a new drive current which restores the original brightness level of the pixel,...the decay in the brightness and the initial decay slope (light output) can be measure during the burn in (ON time or lifetime of the pixels) and used as a second order correction; see column 11 lines 1-15, also see another method using the claimed ON time, the brightness for performs real times calculations of the life time of the pixels of the correspondent display tile as described in column 11, lines 21-54)

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 24-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies as applied to claim 1 above, and further in view of Cok.

In reference to claim 24, Matthies does not disclose the processing means further performs image upscaling or downscaling at each emissive display tile assembly; Cok discloses a tile emissive display (8) comprising a plurality of emissive display (10) having a distributed processing means in Fig. 4 performing image up/down scaling at each emissive tile as claimed [col. 3, 38-43; col. 4 lines 34-47].

It would have been obvious for one of ordinary skill in the art at the time of the invention to learn the teaching of performing image upscaling or downscaling at each of the tile as taught by Cok in the device of Matthies for the advantage that the tiled display is more easily scaled, has simple communication protocol and does not require a common bus structure or clock signal for implementation (col. 2, lines 13-16 of Cok).

In reference to claim 25, Cok discloses for the image upscaling or down scaling a high-level scaling algorithm is used (col. 4, lines 28-43).

In reference to claim 26, Cok discloses wherein for the image upscaling or downscaling a high-level scaling algorithm is a 100% accurate scaling algorithm (col. 4, lines 6-18).

In reference to claim 27, Cok discloses the distributed processing means of the plurality of emissive display tile assemblies (10) operate in parallel (see Fig. 5).

In reference to claim 28, Cok discloses an emissive display tile assembly (10) is provided with a data input and/or a data output connection for receiving data from or transmitting data to another emissive display tile assembly (10) via any of a multi-line connection (see Figs. 1 and 4).

In reference to claim 31, Matthies (Fig. 2) and Cok discloses in each emissive display tile assembly (10) is provided with a local memory means (36 in Fig. 4 of Cok) for storing configuration data (col. 3, lines 10-15)..

In reference to claim 32, Cok discloses a tile is adapted so that it can be repaired while other tiles continues working (col. 4, lines 50-60)

In reference to claim 33, Cok discloses the display has an adjustable size (col. 2, lines 40-41 and col. 4, lines 48-49).

In reference to claim 34, Matthies (col. 4, lines 3-6) and Cok (col. 5, lines 50-55).discloses the display is an OLED display

In reference to claim 30, Cok discloses an improved design for providing data signals to a tiled display that is expansible, readily scales to larger size tile arrays, does not require a single common hardware connection device and can be self-configured, is provided through the use of *a serial electronic connection* from one display tile to the

next and originating from a single controller. Each display tile is connected to two neighbors and communicates with each neighbor. A display tile at the end of the series of display tiles will only communicate with the single neighbor to which it is connected (col. 2, lines 42-50). But Cok does not specifically that a connector allowing to combine both power and data transmission.

It would have been obvious for one of ordinary skill in the art at the time of the invention to recognize the use of connector allowing to combine both power and data transmission is well known to provide compact system in the art of display are widely used for reducing the size of the system.

Furthermore, absent a showing of critically and/or unexpected result, it would been obvious to one of ordinary skill in the art to combine the power and data transmission as a connector for display system as desired as was judicially recognized with *In re Larson*, 144 USPQ 347 (CCPA 1965), which recognizes that the combination of well known elements i.e. power and data, is normally not desired toward patentable subject matter.

5. Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Matthies and Cok in view of Ogino et al. (U.S Patent No. 6,791,513).

In reference to claim 29, Cok discloses is provided through the use of *a serial electronic connection* from one display tile to the next and originating from a single controller and Ogino discloses an emissive display tile assembly (100) is provided with a power input and/or a power output connection for receiving power from or transmitting

power to another emissive display tile assembly (100) via any of a multi-line connection (106) in Figs. 1, 2, 3, 7 and 12 as claimed.

It would have been obvious for one of ordinary skill in the art at the time of the invention to utilized the power connection as taught by Ogino in the combination display device of Matthies and Cok so that a user can freely and easily change a size of the screen (col. 3, lines 2-3).

Response to Arguments

Applicant's arguments with respect to claims 1, 3-11, 22 and 24 (see page 7 of the Remarks) have been considered but are moot in view of the new ground of Rejection as elaborated above.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Duc Q. Dinh whose telephone number is (571) 272-7686. The examiner can normally be reached on Mon-Fri from 8:00.AM-4:00.PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, RICHARD HJERPE can be reached on (571)272-7691. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only.

Art Unit: 2629

For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Duc Q Dinh/
Primary Examiner, Art Unit 2629